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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/616,412

07/08/2003

Alan R. Atemboski

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02/11/2008

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EXAMINER

PRICE, CARL D

ART UNIT

PAPER NUMBER

3749

MAIL DATE

DELIVERY MODE

02/11/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/616,412	Applicant(s) ATEMBOSKI ET AL.	
	Examiner CARL D. PRICE	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/17/2007 (RCE).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-146 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-146 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on **11/19/2007** has been entered.

Response to Arguments

Applicant's arguments filed **11/19/2007** have been fully considered but they are not persuasive.

Applicant has amended certain ones of the claims to be of a scope not previously considered. Consistent with applicant's argument that the prior art relied on in the previous office action fail to show, disclose and/or teach certain aspects of applicant's invention now recited in the claims filed on **11/19/2007**.

With regard to claims **50-54**, applicant's response includes the following remarks:

“Claim 50 is directed to a burner assembly having a non-metallic burner body with, inter alia, an upper portion with a contoured surface that simulates coal members and that has a substantially flat portion forming a simulated-log-support surface adjacent to the simulated coal members. The simulated-log-support surface on the upper portion has an alignment guide configured to align a simulated log relative to the upper portion of the burner body. The simulated log is supported on the burner body by the simulated-log- support surface adjacent to the simulated coal bed.”

In this regard, the examiner re-iterates that which is clearly stated in the examiner's action. That is, “**FR002629178 (ARRIBAS)** shows and discloses a non-metallic ceramic fiber (see page 2, lines 19-30) burner body having a lower portion or surface (at 14; figure 3,4) and an upper contoured portion or surface (2a, 2b, 3a, 3b) have a substantially flat portion (3, 3a) forming a simulated-log-support surface adjacent to simulated coal members (3a; figure 2), the simulated-log-support surface having *guide members (19)* being configured to align simulated-

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logs (2a,b)) relative to the upper portion of the burner body. The examiner therefore maintains that **FR002629178 (ARRIBAS)** alone meets this limitation of the invention recited in claims **50-54**.

(Italics and Highlighting Added)

With regard to claims **46-49**, applicant's response includes the following remarks:

Claim **46** has been amended to clarify the claim. Claim 46 is directed to a burner assembly for a direct vent fireplace, and the burner assembly, inter alia, first and second sets of the gas distribution apertures extending the burner body. The first set of gas distribution apertures are selectively grouped together and configured with the first recessed gas distribution chamber portion to provide a first flow rate of fuel gas through the burner body for ignition and a first flame characteristic in the *direct vent fireplace unit*, and the second set of gas distribution *apertures being selectively grouped together and configured* with the second recessed gas distribution chamber portion to provide a second flow rate of fuel gas through the burner body for ignition and a second flame characteristic in the direct vent fireplace unit different from the first flame characteristic.

"As previously explained, Shimek GB '328 is directed to a dual-purpose indoor/outdoor portable gas burner that "may be used in a fireplace as a burner, or on a deck as a campfire or a grill and/or as a portable and storable campfire grill." Page 2, lines 2-5. See also page 2, lines 8-11. Shimek GB'328 specifically distinguishes its multi-function burner from prior art units because such prior art "units are not useable as a grill or as a gas burner system for a gas fireplace, thus, are single purpose fireplace units." Page 1, lines 24-26. Shimek GB '328 also teaches a multi-purpose burner configured to achieve consistent efficient burning with a desired flame pattern in a manner suitable for use as a grill or a stove cooking unit or a camp fire."

"Shimek GB '328 provides no teaching of a burner assembly as claimed for a direct vent fireplace."

(Italics and Highlighting Added)

Regarding applicant's statement that "Shimek GB '328 provides no teaching of a burner assembly as claimed for a direct vent fireplace", it is noted that applicant's specification fails to provide support for the fireplace of the claimed invention being of the "direct vent" type. As such, this limitation amounts to the addition of new matter to the specification. Indeed, it is further noted that applicant's drawing figures fail to illustrate any structure related to a direct vent fireplace arrangement.

Applicant's remarks directed to the Examiner position that the line of adhesive in Shimek GB '328 amounts to the functional equivalent of a spacer are noted but are however not found to be persuasive. The examiner's position regarding this aspect of the claimed invention is therefore unchanged. That is, the line of adhesive as disclosed in Shimek GB '328 simply does indeed provide a spacer, albeit of a relatively small dimension, that supports a burner body in no different a manner than that broadly defined in applicant's claims. Applicant's attention is directed to the examiner's previous discussion of the claim language as it relates to the broadly claimed seal and/or gasket. In this regard the examiner has previously stated the following:

“With regard to the silicon adhesive 25 in forms a “gasket”, it is noted that the Merriam-Webster Online Dictionary defines “gasket” as “a material (as rubber) or a part (as an O-ring) used to make a joint fluid-tight”. It is further noted that **GB002334328 (SHIMEK et al)** states that the silicon adhesive is applied as “a bead of adhesive” around the manifold area and the same adhesive is used to “seal” around the gas pipe (page 9, lines 7-13) wherein the “means for connecting and sealing said base unit to said ceramic fiber top comprises high temperature silicon base adhesive” (see claims 2 and 3). Given that **GB002334328 (SHIMEK et al)** clearly intends the silicon adhesive to not only connect or bond the burner sections but is also intended as a mean for “sealing”, the examiner maintains the position that the silicon adhesive of **GB002334328 (SHIMEK et al)**, in fact, is a “gasket” in the same manner broadly recited in applicant's claims since it is used to make a joint fluid-tight. And, since **GB002334328 (SHIMEK et al)** directs the silicon adhesive to be applied as “a bead of adhesive”, and not in a manner fully coating the mating surfaces, it follows that the lower portions of the burner body not in contact with the “bead” of silicon adhesive are the structural and functional equivalent to applicant's broadly claimed “burner body having edge portions separate from the spacer and spaced apart from the burner pan with the lower portion being supported apart from burner body, Due to the material thickness of the silicon adhesive “bead”.”

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Furthermore, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the

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references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “structure related to a direct vent fireplace arrangement” (e.g. – claim 46) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims **46-49** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

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invention. Applicant's specification as originally filed fails to provide support for the fireplace of the claimed invention being of the "direct vent" type.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

With regard to all following rejections based on prior art, the recitations such as ***“being connectable to a base with a gas inlet aperture therein”*** (e.g. - claims 46 and 87) has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Also, in regard to the following rejections based on prior art, recitations such as ***“sealably coupeable”*** (e.g. - claim 1, line 5), are deemed recitations of the intended use of the claimed invention which do not result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as

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compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

Claims: Rejected under 35 U.S.C. 103

Claims **50-54** are rejected under 35 U.S.C. 103(a) as being unpatentable over **FR002629178 (ARRIBAS)**(of record) in view of **GB002334328 (SHIMEK et al)**, **GB002068106 (ROSIEK et al)** and **GB002035545 (PALAU)**.

FR002629178 (ARRIBAS) shows and discloses a non-metallic ceramic fiber (see page 2, lines 19-30) burner body having a lower portion or surface (at 14; figure 3,4) and an upper contoured portion or surface (2a, 2b, 3a, 3b) have a substantially flat portion (3, 3a) forming a simulated-log-support surface adjacent to simulated coal members (3a; figure 2), the simulated-log-support surface having guide members (19) being configured to align simulated-logs (2a,b)) relative to the upper portion of the burner body. The non-metallic ceramic burner body lower portion (13; Figure 9) of the burner body sealably coupled to a base (3c). It is further noted that the apertures of the first set of apertures and the second set of apertures are differently distributed (i.e. – See figure 3 showing a mirror image orientation of the longer and shorter passages (5,6)) relationship along the gas supply manifold therefore the separate recessed manifold portions (4) of would necessarily be different and any flame(s) produced by the first set of apertures **FR002629178 (ARRIBAS)** would necessarily be characteristically different flame(s).

FR002629178 (ARRIBAS) also shows and discloses combustion air holes (16) passing through the burner body (3,3b) and arranged out of fluid communication with the gas distribution chamber (4). The flame ports (5, 6) of **FR002629178 (ARRIBAS)** are arranged to permit the flames to move along the contoured surface of the simulated fuel features.

GB002334328 (SHIMEK et al) show (Figures 1, 2, 4, 5, 9) and discloses (see page 8, line 21 - page 9, line 13) a burner assembly for burning a fuel gas from a gas source (17) including:

- a base (11, 11A) with a gas inlet aperture (14);

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- a burner body including:
- an non-metallic ceramic burner body upper portion (12; i.e. -“ceramic fiber top”);
- a non-metallic ceramic burner body lower portion (13; Figure 9) of the burner body sealably coupled (i.e.- “a bead of adhesive is applied around the manifold area close to the outside perimeter of the top unit”) to the base and having an “H-shaped” gas manifold area (at 13; Figure 9) with first (not referenced; e.g. – any one portion of the H-shaped manifold area) and second (not referenced; e.g. – any one portion of the H-shaped manifold area) recessed (see page 9, lines 3-6; i.e. – “It will be understood that the H-shaped area is **recessed** into the ceramic fiber top 12 and provides the aforementioned and described hollow manifold 13”) gas distribution chamber portions formed therein;
- a first set (5) of the gas distribution apertures extending through the burner body to a first recessed gas distribution chamber portion (4);
- a second set (6) of distribution apertures extending through the burner body to the second recessed gas distribution chamber portion (4);
- a spacer contacting and therefore adjacent to the base (not referenced; i.e. – the downward extending perimeter portion adhesively bonded (25) to the base (11, 11A) and forming the sealed recessed gas manifold area (13));
- a gasket forming silicon adhesive (25) positioned between the burner body (12) and base (11, 11A);
- the upper portion of the burner body having a contoured surface (i.e. – “The novel gas burner unit is provided with a three dimensional contoured surface in the ceramic fiber top and a pattern of burner jets extending through the ceramic fiber top into the gas manifold for creating a desired gas flame pattern”; see page 3, lines 7-11) with a plurality of integral peaks and valleys(see Figures 1, 2, 4, 5, 9), the contoured surface being;
- as distribution apertures (24) extending from the lower portion to the contoured surface wherein the;
- a first set of the gas distribution apertures extending through the burner body to the first recessed gas distribution chamber portion (i.e. – that portion of the ceramic matrix communicating with a respective one of the recessed portions of the H-shaped manifold recess);
- a second set of distribution apertures extending through the burner body to the second recessed gas distribution chamber portion (i.e. – that portion of the ceramic matrix communicating with a respective other one of the recessed portions of the H-shaped manifold recess);
- a smaller intermediate chamber portion (not referenced; i.e. – the smaller chamber portion bridging the adjacent parallel and relatively longer chamber portions of the “H-shaped” manifold (13; figure 9);
- wherein the gas distribution apertures are positioned to direct a flow of the fuel gas to the contoured upper surface for ignition; and
- a simulated log (see claim 14) supported adjacent to the simulated ember bed.

It is further noted that the H-shaped manifold (13; figure 9) shows the first set and second set of apertures to be randomly positioned along the surface of their respective manifold H-shaped manifold sections. It is further noted that the number of apertures in the first set is shown to be different from the number of apertures of the second set. Because the apertures of the first set of apertures and the second set of apertures are differently distributed along the gas supply manifold and differ in number the flow rate of fuel flowing through respectively by the first set and second set of apertures would necessarily be different and any flame(s) produced by the first set of apertures would necessarily be characteristically different from any flame(s) produced by the second set of apertures.

GB002334328 (SHIMEK et al) states that the silicon adhesive is applied as “a bead of adhesive” around the manifold area and the same adhesive is used to “seal” around the gas pipe (page 9, lines 7-13) wherein the “means for connecting and sealing said base unit to said ceramic fiber top comprises high temperature silicon base adhesive” (see claims 2 and 3). Given that **GB002334328 (SHIMEK et al)** clearly intends the silicon adhesive to not only connect or bond the burner sections but is also intended as a mean for “sealing”, the examiner maintains the position that the silicon adhesive of **GB002334328 (SHIMEK et al)**, in fact, is a “gasket” in the same manner broadly recited in applicant’s claims since it is used to make a joint fluid-tight. And, since **GB002334328 (SHIMEK et al)** directs the silicon adhesive to be applied as “a bead of adhesive”, and not in a manner fully coating the mating surfaces, it follows that the lower portions of the burner body not in contact with the “bead” of silicon adhesive are the structural and functional equivalent to applicant’s broadly claimed “burner body having edge portions separate from the spacer and spaced apart from the burner pan with the lower portion being supported apart from burner body, Due to the material thickness of the silicon adhesive “bead”.

FR002629178 (ARRIBAS) discloses the invention substantially as set forth in the claims with possible exception to:

- the contoured surface shaped to simulate a plurality of coal/ember members arranged in a simulated ember bed; and the burner body being sealed, such as with and adhesive, to the burner base.

GB002068106 (ROSIEK ET AL) teaches, from the same solid fuel effect gas fire field of endeavor as **GB002334328 (SHIMEK et al)**, providing a non-metallic ceramic burner body with gas distribution apertures (3) extending from a flat lower portion or undersurface to a contoured upper portion or surface (4', 4'') of a plate-like member; wherein the contoured surface is shaped to simulate a plurality of coal/ember members arranged in a simulated ember bed and defines a plurality of integral peaks (6) and valleys (7). **GB002068106 (ROSIEK ET AL)** discloses the spacing of peaks (6) and troughs (7) are arranged to "ensure the hot fuel bed simulation" (see page 3, line 2), and an appearance of burning fuel is produced by "hot wispy flames around the coal and/or log elements (4, 4') to thus enhance the realism of the fire" (see page 3, lines 13-14). In this regard, it is noted that the phrase "realism of the fire" would necessarily be understood by a person having ordinary skill in the art of solid fuel effect, or simulated, gas fires to be glowing at selected color variations since it is well known that color variations are necessarily displayed in real solid fuel fires. **GB002068106 (ROSIEK ET AL)** also discloses (page 3, lines 27-34) that the log and/or coal elements 4, 4' are coated with solid organic material or impregnated or made with materials to produce selected color variations obtained from real fuel fires. **GB002068106 (ROSIEK ET AL)** shows gas aperture outlets at a plurality of different planes and different spacing (see figure 4).

GB002035545 (PALAU) teaches, from the same solid fuel effect gas fire field of endeavor as **GB002334328 (SHIMEK et al)**, providing a burner body with gas distribution apertures (3) extending from a flat lower portion or undersurface to a contoured upper portion or top surface (12) wherein the contoured surface is shaped to simulate a plurality of coal/ember members arranged in a simulated ember bed. **GB002035545 (PALAU)** acknowledges (see page 1, lines 77-98) that the result of the contoured surface is to produce "shades of varying brightness as a result of the temperature difference" wherein the colors vary "from bright red at the periphery of protuberances 12 to near-black in the most central region of the protuberance, resulting in the optical effects similar to burning logs.

In regard to claims in regard to claim **50-54**, to bring about shades of varying brightness as a result of the temperature difference in the burner for the purpose of producing the simulated

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realistic effect of a hot real fuel bed, it would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to construct the non-metallic ceramic burner body upper portion of **FR002629178 (ARRIBAS)** to include a flat lower portion or bottom surface, distribution apertures positioned in a plurality of planes and spacing, a peak and trough contoured profile, and/or materials that glow at selected color variations, in view of the teachings of **GB002068106 (ROSIEK ET AL)** and **GB002035545 (PALAU)**. Also, for the purpose of sealing the upper and base portions of the **FR002629178 (ARRIBAS)** burner assembly, it would have been obvious to a person having ordinary skill in the art to seal the two members together such as with an adhesive, in view of the teaching of **GB002334328 (SHIMEK et al)**. In regard to claim 52, Official Notice is taken that vermiculite is a well known suitable refractory material (see for example GB002275331A; US003284209; GB002258723A) used in forming simulated fires. Therefore, in view of that which is well known in the art, it would have been obvious to a person having ordinary skill in the art to for the burner element from vermiculite. With regard to the burner body being formed of "compressed" material, the recitation "compressed" is deemed a method or process limitation which can be given no patentable weight in the process claim. In regard to claim 54, to form the gas distribution chamber (4) of **FR002629178 (ARRIBAS)** to have first and second chamber portions where one chamber portion has a greater number of flame apertures for the purpose of creating a varied flame effect, would have been obvious to a person having ordinary skill in the art in view of the teaching of **GB002334328 (SHIMEK et al)**.

Claims: Rejected under 35 U.S.C. 103

Claims 46-49, 55, 56, 58, 59, 61-75, 79-92, 94-96, 98-104, 106-125, 128-135, 139-146, are rejected under 35 U.S.C. 103(a) as being unpatentable over **GB002334328 (SHIMEK et al)** in view of **GB002068106 (ROSIEK et al)** and **GB002035545 (PALAU)** and **FR002629178 (ARRIBAS)**.

GB002334328 (SHIMEK et al) show (Figures 1, 2, 4, 5, 9) and discloses (see page 8, line 21 - page 9, line 13) a burner assembly for burning a fuel gas from a gas source (17) including:

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- a base (11, 11A) with a gas inlet aperture (14);
- a burner body including:
 - an non-metallic ceramic burner body upper portion (12; i.e. -“ceramic fiber top”);
 - a non-metallic ceramic burner body lower portion (13; Figure 9) of the burner body sealably coupled (i.e.- “a bead of adhesive is applied around the manifold area close to the outside perimeter of the top unit”) to the base and having an “H-shaped” gas manifold area (at 13; Figure 9) with first (not referenced; e.g. – any one portion of the H-shaped manifold area) and second (not referenced; e.g. – any one portion of the H-shaped manifold area) recessed (see page 9, lines 3-6; i.e. – “It will be understood that the H-shaped area is recessed into the ceramic fiber top 12 and provides the aforementioned and described hollow manifold 13”) gas distribution chamber portions formed therein;
- a spacer contacting and therefore adjacent to the base (not referenced; i.e. – the downward extending perimeter portion adhesively bonded (25) to the base (11, 11A) and forming the sealed recessed gas manifold area (13));
- a gasket and spacer forming silicon adhesive (25) positioned between the burner body (12) and base (11, 11A);
- the upper portion of the burner body having a contoured surface (i.e. – “The novel gas burner unit is provided with a three dimensional contoured surface in the ceramic fiber top and a pattern of burner jets extending through the ceramic fiber top into the gas manifold for creating a desired gas flame pattern”; see page 3, lines 7-11) with a plurality of integral peaks and valleys(see Figures 1, 2, 4, 5, 9), the contoured surface being;
- as distribution apertures (24) extending from the lower portion to the contoured surface wherein the;
- a first set of the gas distribution apertures extending through the burner body to the first recessed gas distribution chamber portion (i.e. – that portion of the ceramic matrix communicating with a respective one of the recessed portions of the H-shaped manifold recess);
- a second set of distribution apertures extending through the burner body to the second recessed gas distribution chamber portion (i.e. – that portion of the ceramic matrix communicating with a respective other one of the recessed portions of the H-shaped manifold recess);
- a smaller intermediate chamber portion (not referenced; i.e. – the smaller chamber portion bridging the adjacent parallel and relatively longer chamber portions of the “H-shaped” manifold (13; figure 9).
- wherein the gas distribution apertures are positioned to direct a flow of the fuel gas to the contoured upper surface for ignition; and
- a simulated log (see claim 14) supported adjacent to the simulated ember bed.

It is further noted that the H-shaped manifold (13; figure 9) shows the first set and second set of apertures to be randomly positioned along the surface of their respective manifold H-shaped manifold sections. It is further noted that the number of apertures in the first set is shown

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to be different from the number of apertures of the second set. Because the apertures of the first set of apertures and the second set of apertures are differently distributed along the gas supply manifold and differ in number the flow rate of fuel flowing through respectively by the first set and second set of apertures would necessarily be different and any flame(s) produced by the first set of apertures would necessarily be characteristically different from any flame(s) produced by the second set of apertures.

GB002334328 (SHIMEK et al) states that the silicon adhesive is applied as “a bead of adhesive” around the manifold area and the same adhesive is used to “seal” around the gas pipe (page 9, lines 7-13) wherein the “means for connecting and sealing said base unit to said ceramic fiber top comprises high temperature silicon base adhesive” (see claims 2 and 3). Given that **GB002334328 (SHIMEK et al)** clearly intends the silicon adhesive to not only connect or bond the burner sections but is also intended as a mean for “sealing”, the examiner maintains the position that the silicon adhesive of **GB002334328 (SHIMEK et al)**, in fact, is a “gasket” in the same manner broadly recited in applicant’s claims since it is used to make a joint fluid-tight. And, since **GB002334328 (SHIMEK et al)** directs the silicon adhesive to be applied as “a bead of adhesive”, and not in a manner fully coating the mating surfaces, it follows that the lower portions of the burner body not in contact with the “bead” of silicon adhesive are the structural and functional equivalent to applicant’s broadly claimed “burner body having edge portions separate from the spacer and spaced apart from the burner pan with the lower portion being supported apart from burner body, Due to the material thickness of the silicon adhesive “bead”.

GB002334328 (SHIMEK et al) discloses the invention substantially as set forth in the claims with possible exception to:

- the contoured surface shaped to simulate a plurality of coal/ember members arranged in a simulated ember bed.

GB002068106 (ROSIEK ET AL) teaches, from the same solid fuel effect gas fire field of endeavor as **GB002334328 (SHIMEK et al)**, providing a non-metallic ceramic burner body with gas distribution apertures (3) extending from a flat lower portion or undersurface to a

contoured upper portion or surface (4', 4'') of a plate-like member; wherein the contoured surface is shaped to simulate a plurality of coal/ember members arranged in a simulated ember bed and defines a plurality of integral peaks (6) and valleys (7). **GB002068106 (ROSIEK ET AL)** discloses the spacing of peaks (6) and troughs (7) are arranged to "ensure the hot fuel bed simulation" (see page 3, line 2), and an appearance of burning fuel is produced by "hot wispy flames around the coal and/or log elements (4, 4') to thus enhance the realism of the fire" (see page 3, lines 13-14). In this regard, it is noted that the phrase "realism of the fire" would necessarily be understood by a person having ordinary skill in the art of solid fuel effect, or simulated, gas fires to be glowing at selected color variations since it is well known that color variations are necessarily displayed in real solid fuel fires. **GB002068106 (ROSIEK ET AL)** also discloses (page 3, lines 27-34) that the log and/or coal elements 4, 4' are coated with solid organic material or impregnated or made with materials to produce selected color variations obtained from real fuel fires. **GB002068106 (ROSIEK ET AL)** shows gas aperture outlets at a plurality of different planes and different spacing (see figure 4).

GB002035545 (PALAU) teaches, from the same solid fuel effect gas fire field of endeavor as **GB002334328 (SHIMEK et al)**, providing a burner body with gas distribution apertures (3) extending from a flat lower portion or undersurface to a contoured upper portion or top surface (12) wherein the contoured surface is shaped to simulate a plurality of coal/ember members arranged in a simulated ember bed. **GB002035545 (PALAU)** acknowledges (see page 1, lines 77-98) that the result of the contoured surface is to produce "shades of varying brightness as a result of the temperature difference" wherein the colors vary "from bright red at the periphery of protuberances 12 to near-black in the most central region of the protuberance, resulting in the optical effects similar to burning logs.

FR002629178 (ARRIBAS) shows and discloses a non-metallic ceramic fiber (see page 2, lines 19-30) burner body having a lower portion or surface (at 14; figure 3,4) and an upper contoured portion or surface (2a, 2b, 3a, 3b) have a substantially flat portion (3, 3a) forming a simulated-log-support surface adjacent to simulated coal members (3a; figure 2), the simulated-log-support surface having guide members (19) being configured to align simulated-logs (2a,b))

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relative to the upper portion of the burner body. The non-metallic ceramic burner body lower portion (13; Figure 9) of the burner body sealably coupled to a base (3c). It is further noted that the apertures of the first set of apertures and the second set of apertures are differently distributed (i.e. – See figure 3 showing a mirror image orientation of the longer and shorter passages (5,6)) relationship along the gas supply manifold therefore the separate recessed manifold portions (4) of would necessarily be different and any flame(s) produced by the first set of apertures **FR002629178 (ARRIBAS)** would necessarily be characteristically different flame(s).

In regard to claims **46-49, 55, 56, 58, 59, 61-75, 79-92, 94-96, 98-104, 106-125, 128-135, 139-146**, to bring about shades of varying brightness as a result of the temperature difference in the burner for the purpose of producing the simulated realistic effect of a hot real fuel bed, it would have been obvious to a person having ordinary skill in the art at the time of applicant's invention to construct the non-metallic ceramic burner body upper portion of **GB002334328 (SHIMEK et al)** to include a flat lower portion or bottom surface, distribution apertures positioned in a plurality of planes and spacing, a peak and trough contoured profile, and/or materials that glow at selected color variations, in view of the teachings of **GB002068106 (ROSIEK ET AL)**, **GB002035545 (PALAU)** or **FR002629178 (ARRIBAS)**. In regard to claims **46** and **70**, because the apertures of the first set of apertures and the second set of apertures are differently distributed along the gas supply manifold and differ in number the flow rate of fuel flowing through respectively by the first set and second set of apertures would necessarily be different and any flame(s) produced by the first set of apertures would necessarily be characteristically different from any flame(s) produced by the second set of apertures. In regard to claim 119, for the purpose of further enhancing the decorative and aesthetic effect of the simulated burning log effect, it would have been obvious to a person having ordinary skill in the art to modify flame ports to of **GB002334328 (SHIMEK et al)** to permit the flames to move along the contoured surface of the simulated fuel features, in view of the teaching of **FR002629178 (ARRIBAS)**.

Claims: Rejected under 35 U.S.C. 103

Claims **60, 78, 93, 126, 127** and **136-138**, are rejected under 35 U.S.C. 103(a) as being unpatentable over **GB002334328 (SHIMEK et al)** in view of **GB002068106 (ROSIEK et al)**

and **GB002035545 (PALAU)** and **FR002629178 (ARRIBAS)**, as applied to claims **55, 73, 87, 94** and **135** respectively above, and further in view of **US005941237 (SHIMEK et al)** or **US004726351 (WHITTAKER et al)**.

GB002334328 (SHIMEK et al) show and discloses the invention substantially as set forth in the claims with possible exception to:

- the solid fuel effect gas fire burner bodies with combustion air holes extending there through and out of fluid communication with a fuel gas distribution chamber for providing an additional non-fuel mixed air supply to the flame area in order to aid in the formation of flickering or realistic looking flames.

Each of **US005941237 (SHIMEK et al)** and **US004726351 (WHITTAKER et al)** teach, from the same solid fuel effect gas fire field of endeavor as **GB002334328 (SHIMEK et al)**, providing solid fuel effect gas fire burner bodies with combustion air holes extending there through and out of fluid communication with a fuel gas distribution chamber. In particular:

US005941237 (SHIMEK et al) (see figure 17) provides a non-metallic ceramic burner solid fuel effect gas fire burner body (14), including apertures (63) and recessed portion (62), with combustion air holes (65) extending there through and out of fluid communication with a fuel gas distribution chamber.

US004726351 (WHITTAKER et al) provides (see figure 4) solid fuel effect gas fire burner body, including unevenly spaced, sized and distributed apertures (37C, 37D) and recessed portions (36, 37), with combustion air holes (38) extending there through and out of fluid communication with spaced (36, 37) and intermediate (note that gas manifold (37) has restrict, or smaller, passages formed adjacent to air holes (38)) communicating a fuel gas distribution portions.

In regard to claims **60, 78, 93, 97, 126, 127** and **136-138**, for the purpose of providing additional non-fuel mixed air supply to the flame area in order to aid in the formation of flickering or realistic looking flames, it would have been obvious to a person having ordinary

skill in the art at the time of the claimed invention to modify the burner body of **GB002334328 (SHIMEK et al)** to include air holes arranged in the manner set forth in applicant's claims, in view of the teaching of **US005941237 (SHIMEK et al)** or **US004726351 (WHITTAKER et al)**.

Claims Rejected under 35 U.S.C. 103

Claims **57, 76, 77** and **105**, are rejected under 35 U.S.C. 103(a) as being unpatentable over **GB002334328 (SHIMEK et al)** in view of **GB002068106 (ROSIEK et al)** and **GB002035545 (PALAU)** and **FR002629178 (ARRIBAS)**, as applied to claims **55, 73 and 99** respectively above, and further in view of **US005046944 (SMITH)**.

GB002334328 (SHIMEK et al) show and discloses the invention substantially as set forth in the claims with possible exception to:

- forming a plurality of intercommunicating chamber portions by support fence or spacers sealed with a gasket in a groove in a lower face of a non-metallic ceramic burner body flat lower portion.

US005046944 (SMITH) teaches, from the same solid fuel effect gas fire field of endeavor as **GB002334328 (SHIMEK et al)**, forming a plurality of intercommunicating chamber portions (728), which may be independently feed by separate gas supplies (see figures 32 and 33), by support fence or spacers (734; see Figures 28-29) sealed with a gasket forming adhesive (736) in a groove (732) cut or moulded in a lower face of a non-metallic ceramic burner body flat lower portion (730).

In regard to claims **57, 76, 77** and **105**, for the purpose of controlling and distributing a fuel gas to desired portions of the burner body and for supporting and maintaining a space between the burner body and burner pan, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify **GB002334328 (SHIMEK et al)** to include a plurality of intercommunicating chamber portions, which may be independently feed by separate gas supplies, defined by support fences or spacers sealed with a gasket forming adhesive material

in a groove formed in the lower face thereof and in the manner set forth in applicant's claims, in view of the teaching of **US005046944 (SMITH)**.

Conclusion

See the attached USPTO form 892 for prior art made of record and not relied upon which is considered pertinent to applicant's disclosure.

USPTO CUSTOMER CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CARL D. PRICE whose telephone number is (571) 272-4880. The examiner can normally be reached on Monday through Friday between 9:0am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on (571) 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CARL D. PRICE/

Primary Examiner, Art Unit 3749